What Is Claimed is:

1. A medical guidewire comprising:

an imaging guidewire body having a lumen provided along the central axis of the imaging guidewire body;

a static central core provided within the lumen of the imaging guidewire body;

an imaging device coupled to the static central core; and

an engaging structure to selectively couple the imaging guidewire body to the static central core and the imaging guidewire body is capable of translation and rotation about the central static core.

2. The guidewire of claim 1 wherein a floppy tip is coupled to the static central core.

3. The guidewire of claim 1 wherein the imaging guidewire body is axially translated upon disengagement from the static central core.

4. The guidewire of claim 1 wherein the imaging device is an ultrasound transducer.

5. The guidewire of claim 4 wherein the transducer comprises an air backing.

6. The guidewire of claim 1 further comprising a motor drive adapter for connecting the guidewire to a motor drive unit.

7. The guidewire of claim 6 wherein the motor drive adapter further comprises an electrical connector.

8. The guidewire of claim 6 wherein the motor drive adapter further comprises a mechanical connector.

9. The guidewire of claim 7 wherein the electrical connector is a rotary transformer.

10. The guidewire of claim 8 wherein the mechanical connector comprises a rubber wheel.

11. The guidewire of claim 10 wherein the rubber wheel comprise electrodes.

12. The guidewire of claim 8 wherein the mechanical connector comprises a multi-leaved spring.

13. The guidewire of claim 1 further comprising a sheath connected to the imaging guidewire body.

14. The guidewire of claim 13 wherein the sheath is axially translated with the imaging guidewire body.

15. The guidewire of claim 13 wherein the sheath remains in place with the static central core when the imaging guidewire body is axially translated.

16. The guidewire of claim 13 wherein a fluid is flushed in the sheath to permit acoustical waves to transmit from the acoustical transducer.

17. The guidewire of claim 13 wherein the sheath further comprises an anti-coagulant coating.

18. The guidewire of claim 13 wherein the sheath further comprises a hydrophilic coating.

19. A method of applying treatment to a body portion within a body, the method comprising the steps of:

inserting a guidewire having an imaging guidewire body and a static central core into a first site of interest in a patient's body, the imaging guidewire body having an imaging device and a central axis along the length of the imaging guidewire body;

using the imaging device to obtain an image at the first site of interest;

disengaging the imaging device from the static central core by using an engaging structure coupled between the imaging device and the static central core;

translating the imaging guidewire body of the guidewire along the axis of the imaging guidewire body to a second site of interest without axially translating the static central core; and

treating the body portion within the body.

20. The method of claim 19 further comprising the step of using the imaging device to obtain an image at the second site of interest.

21. The method of claim 20 further comprising the steps of:

translating the imaging guidewire body of the guidewire along the axis of the imaging guidewire body to a third site of interest without axially translating the static central core; and

using the imaging device to obtain an image at the third site of interest.

22. The method of claim 19 wherein the step of using the imaging device to obtain an image at the first site of interest rotates the imaging device.

23. The method of claim 20 wherein the steps of using the imaging device to obtain an image at the first and second sites of interest rotates the imaging device.

24. The method of claim 21 wherein the steps of using the imaging device to obtain an image at the first, second and third sites of interest rotates the imaging device.

25. The method of claim 19 further comprising the step of coupling the imaging device to the static central core by using the engaging structure.

26. The method of claim 20 further comprising the step of coupling the imaging device to the static central core by using the engaging structure.

27. The method of claim 21 further comprising the step of coupling the imaging device to the static central core by using the engaging structure.

28. The method of claim 22 further comprising the step of coupling the imaging device to the static central core by using the engaging structure.

29. The method of claim 23 further comprising the step of coupling the imaging device to the static central core by using the engaging structure.

30. The method of claim 20 further comprising the steps of:

coupling the imaging device to the static central core by using the engaging structure; and

translating the imaging guidewire body of the guidewire along the axis of the imaging guidewire body to a third site of interest without axially translating the static central core.

31. The method of claim 30 further comprising the step of using the imaging device to obtain an image at the third site of interest.

32. The method of claim 30 wherein the steps of using the imaging device to obtain an image at the first, second and third sites of interest rotates the imaging device.

33. The method of claim 19 wherein the imaging device includes an ultrasound transducer.

34. The method of claim 19 wherein the treating step includes placing a stent within the body.

35. The method of claim 19 wherein the treating step includes inflating a balloon within the body.

36. The method of claim 34 further comprising after the stent placing step, the steps of:

translating the imaging guidewire body of the guidewire along the axis of the imaging guidewire body to a third site of interest without axially translating the static central core; and

using the imaging device to obtain an image at the third site of interest.

37. The method of claim 35 further comprising after the balloon inflating step, the steps of:

translating the imaging guidewire body of the guidewire along the axis of the imaging guidewire body to a third site of interest without axially translating the static central core; and

using the imaging device to obtain an image at the third site of interest.

38. The method of claim 19 wherein the detaching step and the translating step are performed before the treating step is performed.

39. The method of claim 19 wherein the treating step is performed before the detaching step and the translating step are performed.

40. The guidewire of claim 1 wherein the engaging structure is a detachable connector.

41. The guidewire of claim 1 further comprising:

an extension static central core;

a coupler to selectively couple the extension static central core to the static central core so that the length of the static central core may be adjusted.

42. The method of claim 19 wherein the engaging structure is a detachable connector.

43. The method of claim 19 wherein the guidewire includes an extension static central core and a coupler to selectively couple the extension static central core to the static central core so that the length of the static central core may be adjusted, the method comprising the step of coupling the extension static central core to the static central core.

44. The method of claim 43 wherein the imaging step at the first site of interest is performed before the step of coupling the extension static central core to the static central core.

45. The method of claim 43 wherein the imaging step at the first site of interest is performed after the step of coupling the extension static central core to the static central core.

46. The method of claim 43 wherein the translating step is performed before the step of coupling the extension static central core to the static central core.

47. The method of claim 43 wherein the translating step is performed after the step of coupling the extension static central core to the static central core.